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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/602,532	06/24/2003	Philip James Jenkinson	4398-239	1755
23117	7590	12/20/2005	EXAMINER	
NIXON & VANDERHYE, PC 901 NORTH GLEBE ROAD, 11TH FLOOR ARLINGTON, VA 22203			NASRI, JAVAID H	
			ART UNIT	PAPER NUMBER
			2839	

DATE MAILED: 12/20/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/602,532

Applicant(s)

JENKINSON ET AL.

Examiner

Javaid Nasri

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 07 December 2005.  
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-17 and 19-28 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 1-11, 13-17 and 19-28 is/are rejected.  
7) ☒ Claim(s) 12 is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.  
10) ☒ The drawing(s) filed on 24 June 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☒ All b) ☐ Some \* c) ☐ None of:  
1. ☒ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.  
4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_.  
5) ☐ Notice of Informal Patent Application (PTO-152)  
6) ☐ Other: \_\_\_\_\_.

### DETAILED ACTION

1. The final rejection previously submitted on 9/12/2005 has been withdrawn.

#### *Claim Rejections - 35 USC § 102*

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-3, 10-11, 13-17, 19, 21, 25 and 26 are rejected under 35 U.S.C. 102(b) as being anticipated by Leong et al (5,713,752, cited in previous office action).

Leong et al discloses, **for claim 1**, a plug (10') including a lug (40', 41'); a socket (10) to interface with the plug; and a retaining clip (40, 40a, 40b) including a lug engaging mechanism (41) structured to allow disengagement of the plug from the socket at a predetermined release force applied to the plug (see abstract), the retaining clip being movably positioned with respect to the socket for movement between a non-plug-retaining position (see marked figure 1, attached), and a plug-retaining position (see marked figure 1, attached) wherein a sloping surface of the lug engaging mechanism (see marked figure 1, attached) engages the lug, the sloping surface having an angle (see marked figure 1, attached) that is at least partially determinative of the predetermined release force, wherein the retaining clip is moveable between the non-plug-retaining position and the plug-retaining position while the plug is engaged with the socket (under normal operation, see figure 1), the plug is configured to disconnect from the socket at a

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predetermined release force and wherein the plug retaining assembly is reconfigurable so that after the plug has disconnected due to being subjected to at least the release force, the plug may be reconnected to the socket and remain connected to the socket until again subjected to the release force, **for claims 3**, in use, the plug is disconnectable from the socket by application of a withdrawal force that is substantially less than the release force required to disconnect the plug from the socket when the retaining clip is used, **for claim 10**, the retaining clip is pivotally mounted to the socket (see figure 1), **for claim 11**, the retaining clip includes a pair of pins (44) that insertable within respective bores (23) provided in lugs of the socket to enable pivotal movement of the retaining clip about the pins (see figures 1-3), **for claim 13**, the plug includes at least one pin receiving slot that is adapted to receive respective pins provided on the socket, **for claim 14**, pair of lugs, **for claim 15**, the retaining clip includes a pair of tabs positioned at respective ends of a pair of arm, the tabs adapted to engage with respective lugs of the plug to maintain the retaining clip in a plug retaining position (see figure 1), **for claim 16**, the resilience of the arms is at least partially determinative of the predetermined release force, **for claim 17**, the friction between the lugs and the tabs is at least partially determinative of the predetermined release force, **for claim 19**, the retaining clip includes a groove (under 41) adapted to receive an upper portion (depends on the orientation of the plug) of the plug when the retaining clip is in the plug retaining position, **for claim 21**, a second plug, a second socket, and a second retaining clip, wherein the retaining clip and second retaining clip are rotatable in opposite directions (since there is no relation to first plug, first socket and first clip, the claim reads on a similar second pair of plug and socket), **for claim 25**, the retaining clip includes a pair of arms and a bridge piece that interconnects the pair of arms, the bridge piece providing the sloping surface (see figure 4),

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for claim 26, a resilience of the pair of arms is at least partially determinative of the predetermined release force,

Note: USPTO interprets claims, giving claims their “broadest reasonable interpretation.”

(See, e.g., *In re Morris*, 127 F.3d 1048, 1054-55 (Fed. Cir. 1997)).

Note: In the reference Leong et al (5,713,752), Elements 10 and 10' are defined as matable connectors, therefore, the can be read as plug or socket.

### ***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over Leong et al.

Leong et al. discloses all the limitations of claim 1, as shown above,

However, Leong et al. does not disclose:

- a) The predetermined release force is between about 100-300 N. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have the predetermined release force to be between about 100-300 N, since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).

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6. Claims 4-9, 22-24, 27 and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Leong et al.

Leong et al discloses all the structural limitations of claims 4-9, 22-24, 27 and 28 as shown above, however, Leong et al does not describe the method as claimed. The claimed method language is counter part of the apparatus claimed. Therefore, it would have been obvious to one ordinary skill in the art at the time the invention was made to develop a particular method for the disclosed apparatus of the cited references.

***Allowable Subject Matter***

7. Claim 12 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

**REASONS FOR ALLOWANCE**

8. The following is an examiner's statement of reasons for allowance:

The reason for allowance of the claims is the inclusion of the limitation,

- a) For claim 12, none of the prior art teaches or suggest, alone or in combination the bore having a notch and the pin having a protrusion, the protrusion engages within the notch when the retaining clip reaches a plug retaining position, in combination with other limitations in the claim which is not found in the prior art reference of record.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

*Response to Arguments*

9. Applicant's arguments with respect to claims have been considered but are moot in view of new approach of rejection.

Regarding applicant's comments:

- a) Claim 1 defines the force at which the plug disengages from the socket. According to the cited reference Leong et al there is a force at which the plug disengages from the socket. As for the claim 20, an obvious type of rejection is given.
- b) Leong et al does not disclose a retaining clip that is movable between the non-plug-retaining position and the plug-retaining position while the plug is engaged with the socket. It should be noted that Leong et al does disclose a retaining clip that is movable between the non-plug-retaining position and the plug-retaining position while the plug is engaged with the socket, according to marked figure 1, attached.

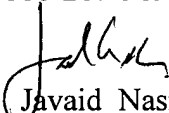
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**Contact**

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Javaid Nasri whose telephone number is 571 272 2095. The examiner can normally be reached on Monday to Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tulsidas C. Patel can be reached on 571 272 2800 ext 39. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Javaid Nasri  
Primary Examiner  
Art Unit 2839

JN  
Jhn

December 14, 2005



